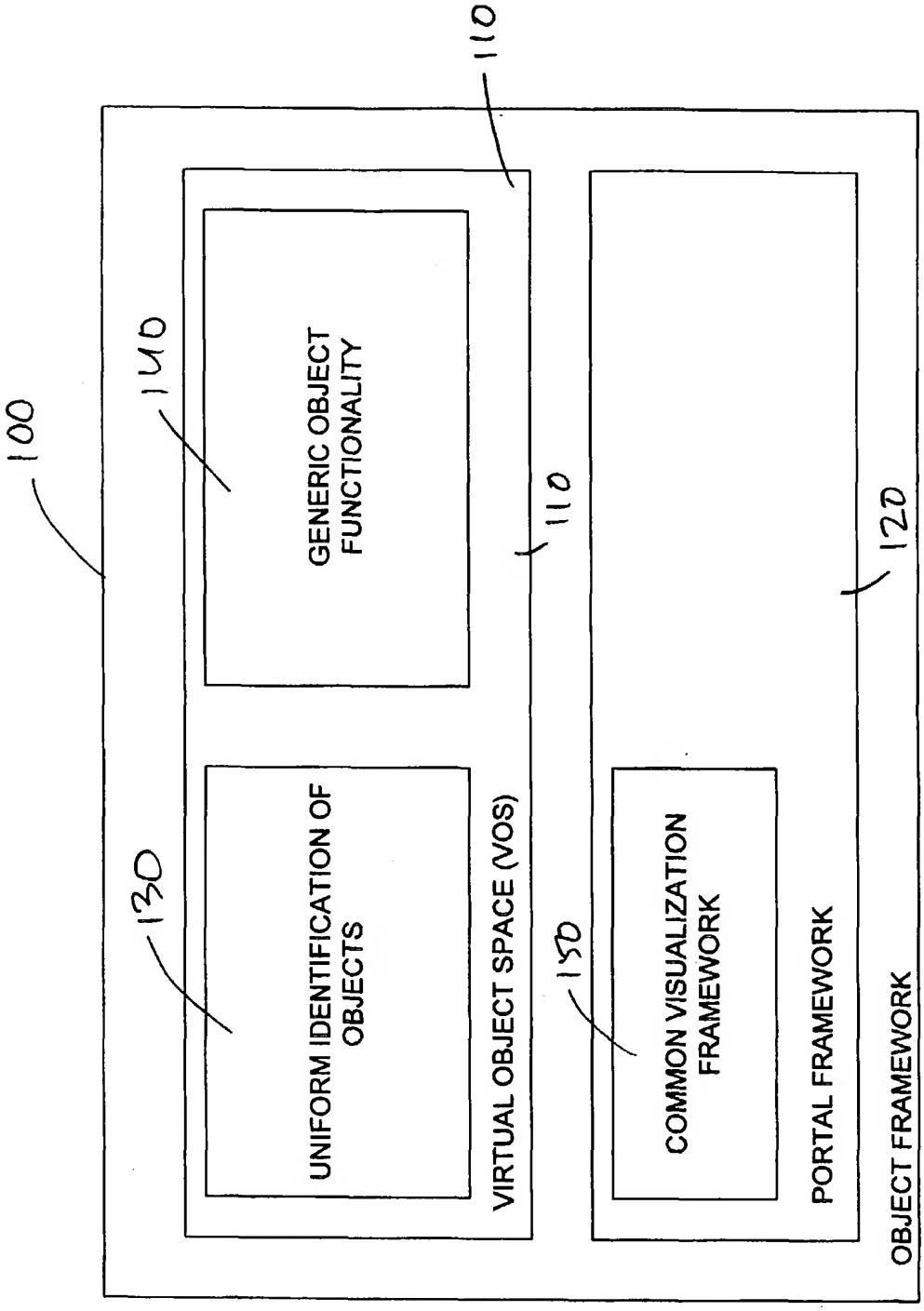
100
110
140
GENERIC OBJECT FUNCTIONALITY
130
UNIFORM IDENTIFICATION OF OBJECTS
VIRTUAL OBJECT SPACE (VOS)
110
150
COMMON VISUALIZATION FRAMEWORK
PORTAL FRAMEWORK
120
OBJECT FRAMEWORK

FIG. 1

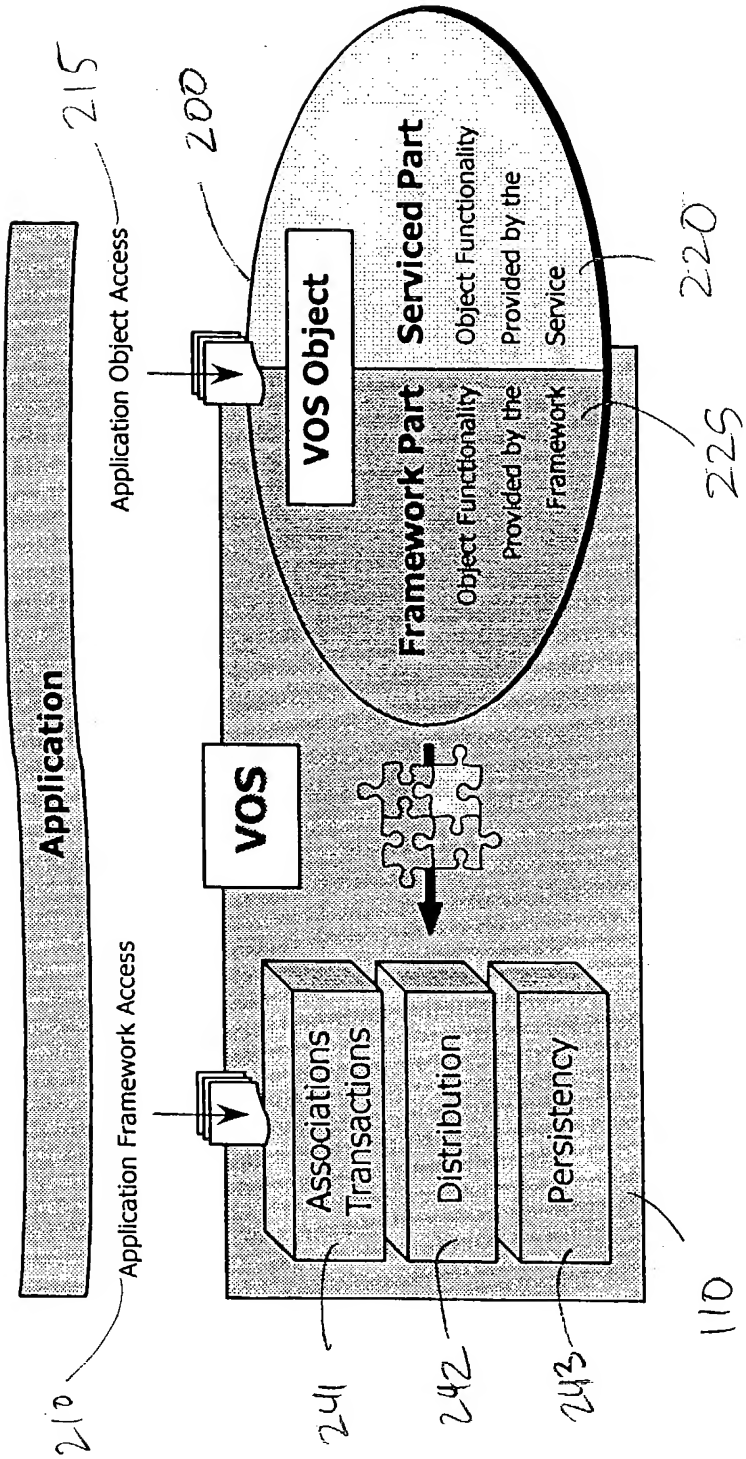
Application
Application Framework Access
Application Object Access
VOS
VOS Object
Framework Part
Object Functionality
Provided by the
Framework
Serviced Part
Object Functionality
Provided by the
Service
Associations
Transactions
Distribution
Persistency
210
215
200
220
225
241
242
243
110

FIG. 2

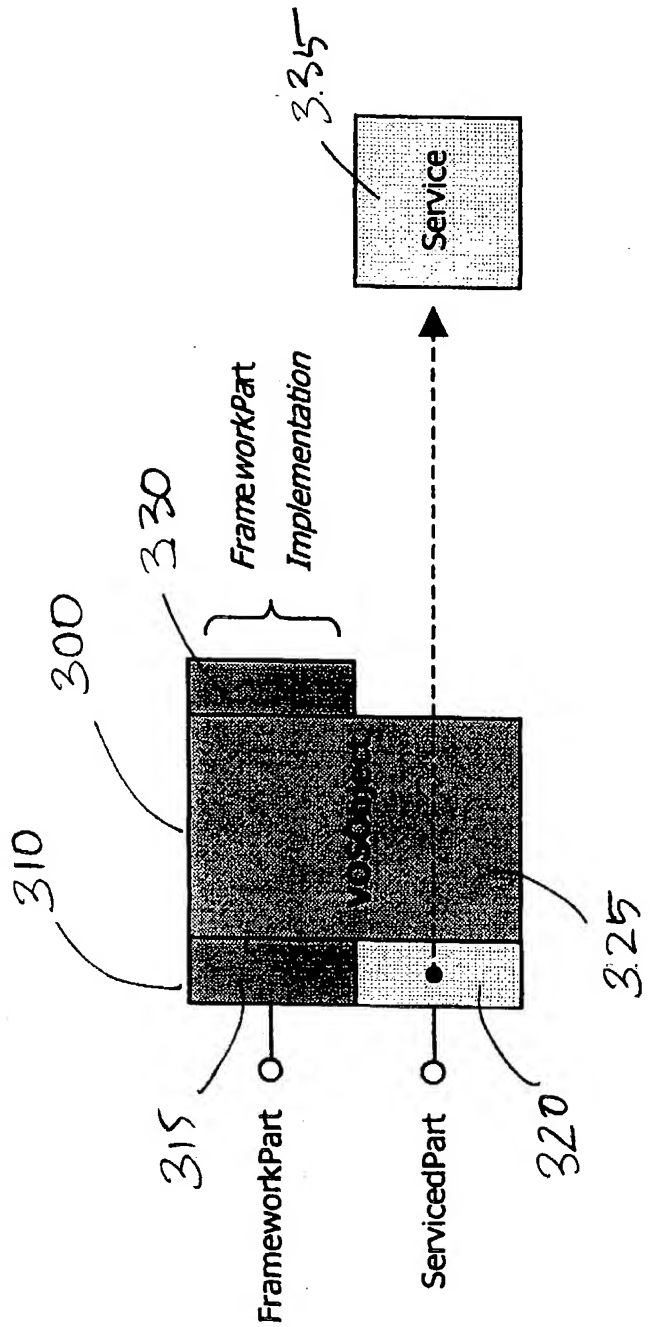
335
Service
330
FrameworkPart
Implementation
300
310
325
315
320
FrameworkPart
ServicedPart

FIG 3A

Content Driven Objects

- Content Service to store persistent object state
- Content Service uses Aspects to add the semantic Object view
- Object Identifier provided by Content Service
- Special Object Service to provide Object Representation (Service as Object Factory)
- Anonymous Objects for the Object Provider
- Objects transported together with the data storage handled by the content service (for example file system)

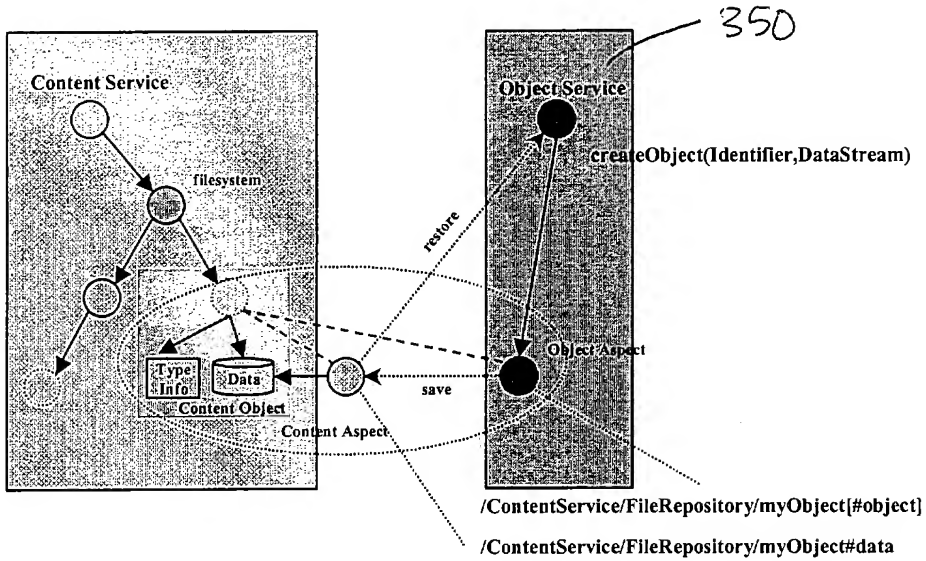

FIG. 3B

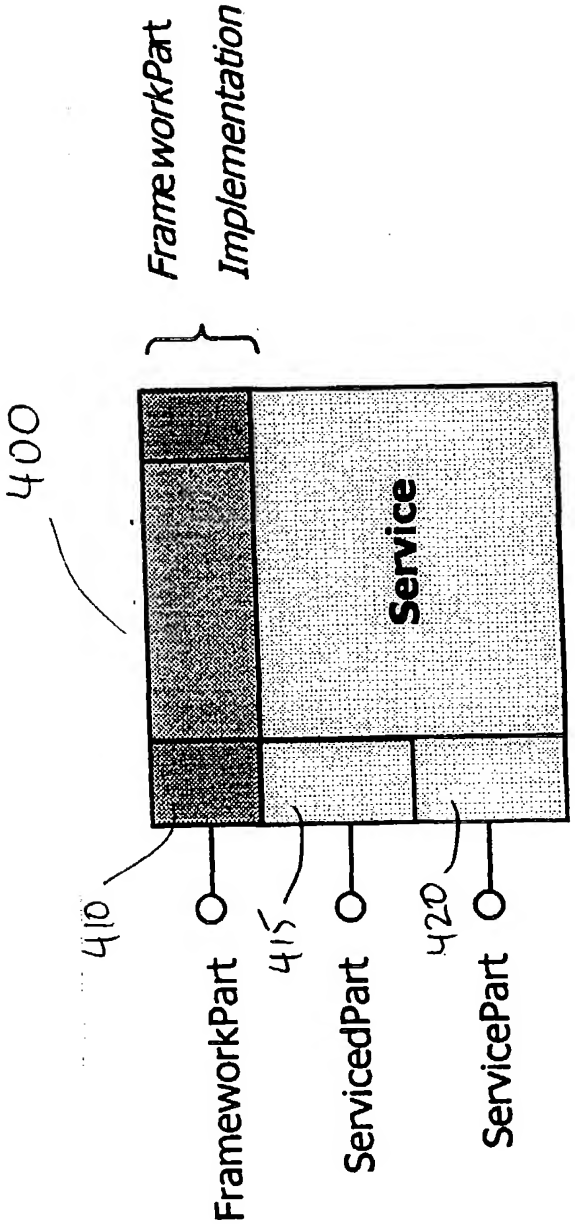
FrameworkPart
Implementation
400
Service
410
415
420
FrameworkPart
ServicedPart
ServicePart

FIG 4

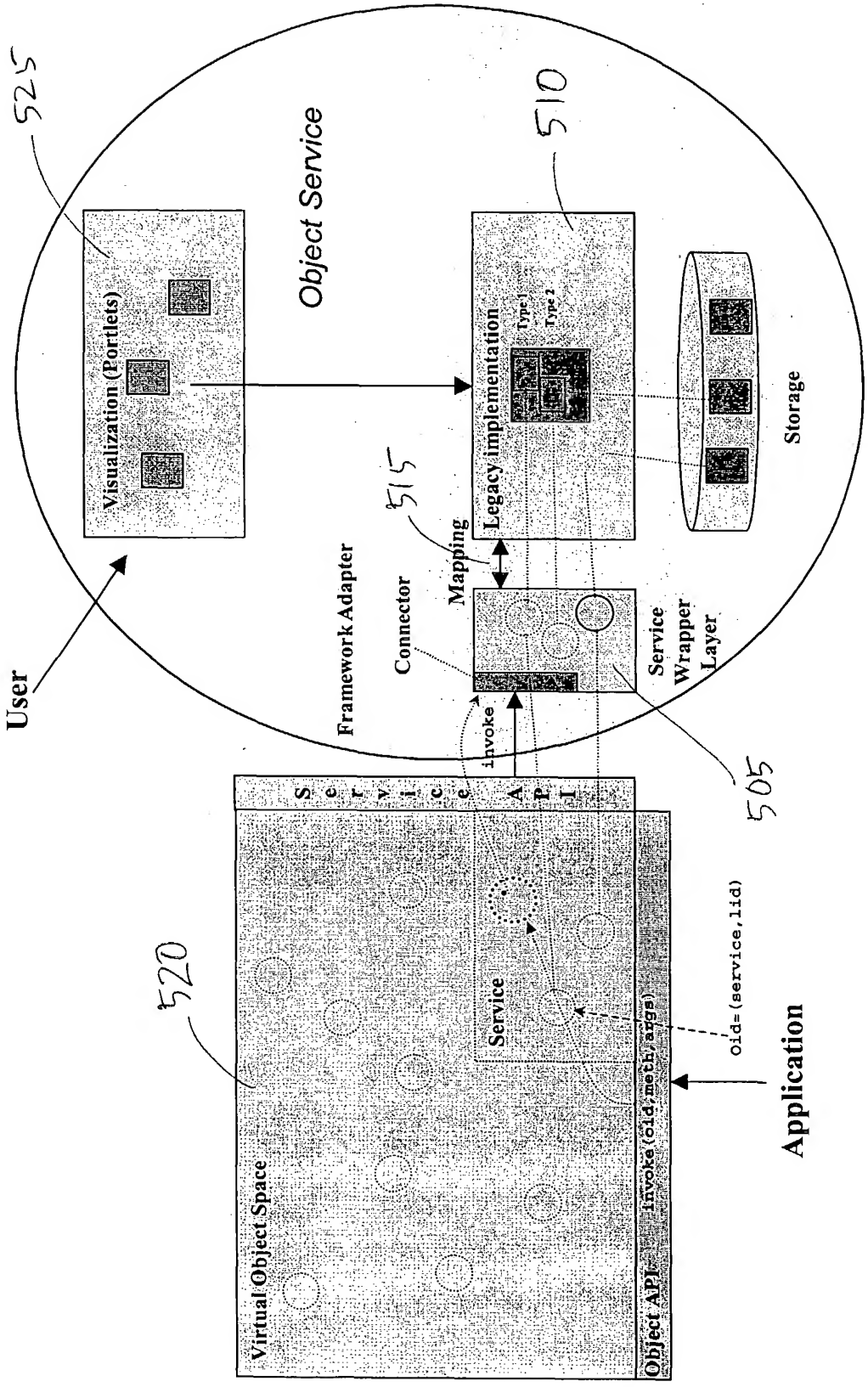
525
Object Service
510
Visualization (Portlets)
Legacy implementation
Type 1
Type 2
Storage
515
Mapping
Framework Adapter
Connector
Service Wrapper Layer
User
invoke
505
Service API
520
Virtual Object Space
Service
Object API
Invoke(oid,meth,args)
oid=(service,lid)
Application

FIGURE 5

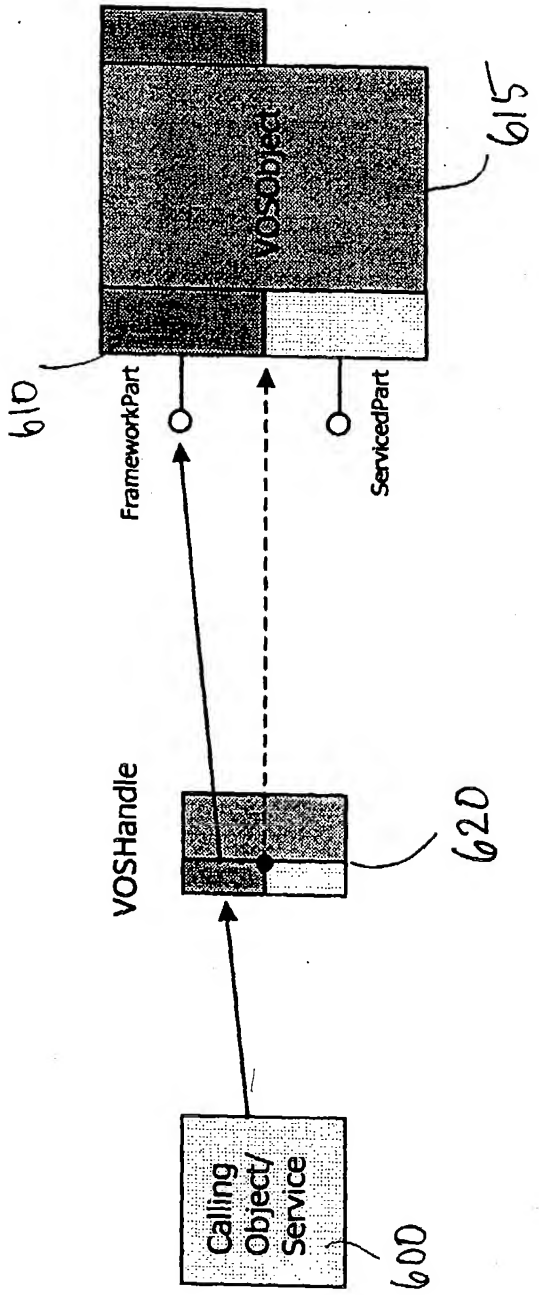
VOSObject
615
610
FrameworkPart
ServicedPart
VOSHandle
620
Calling Object/ Service
600

FIG. 6

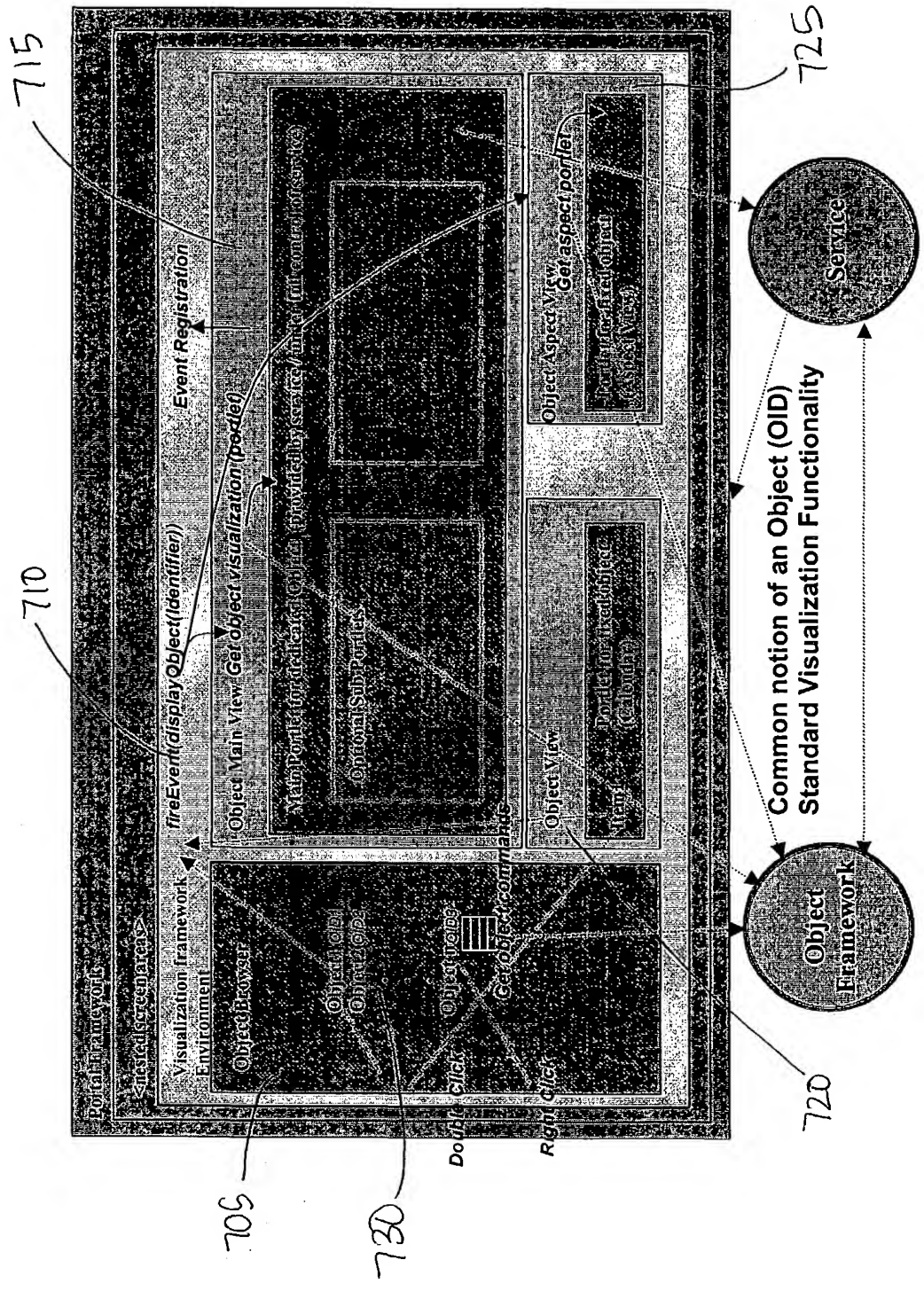
715
710
725
720
705
720
Portal Framework
<nested screen area>
Visualization framework Environment
fireEvent(displayObject(identifier))
Event Registration
Object Main View GetObjectVisualization (portlet)
Main Portlet for Clients of Object
Optional Sub Portlets
Object Aspect View GetAspectPortlet
Object Browser
Object Icon
Object Type
Object name
Double Click
GetObjectCommands
Object View
Right Click
Common notion of an Object (OID)
Standard Visualization Functionality
Service
Object Framework

FIG. 7

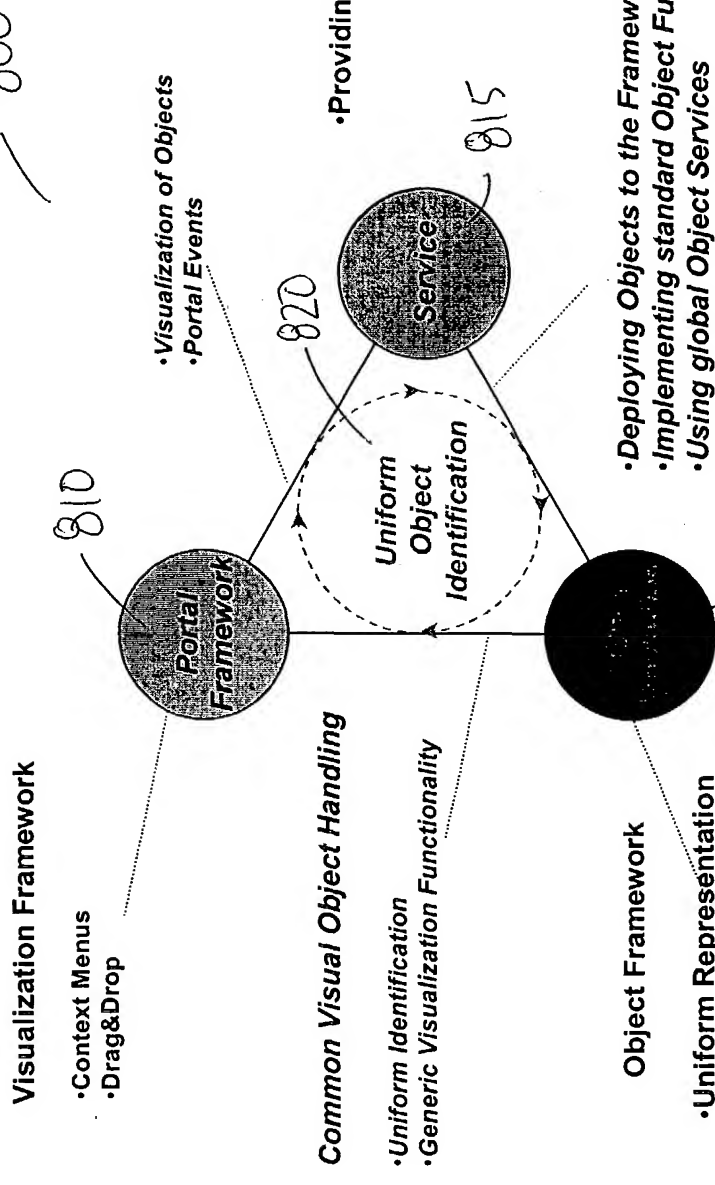
800
Visualization Framework
•Context Menus
•Drag&Drop
810
Portal Framework
•Visualization of Objects
•Portal Events
Common Visual Object Handling
•Uniform Identification
•Generic Visualization Functionality
820
Uniform Object Identification
815
Service
•Providing Objects
805
Object Framework
•Uniform Representation
•Dispatching generic Functionality
•Generic Services
•Global Object Services
•Eventing
•Relations
•Persistency Support
•Deploying Objects to the Framework
•Implementing standard Object Functions
•Using global Object Services

FIG 8

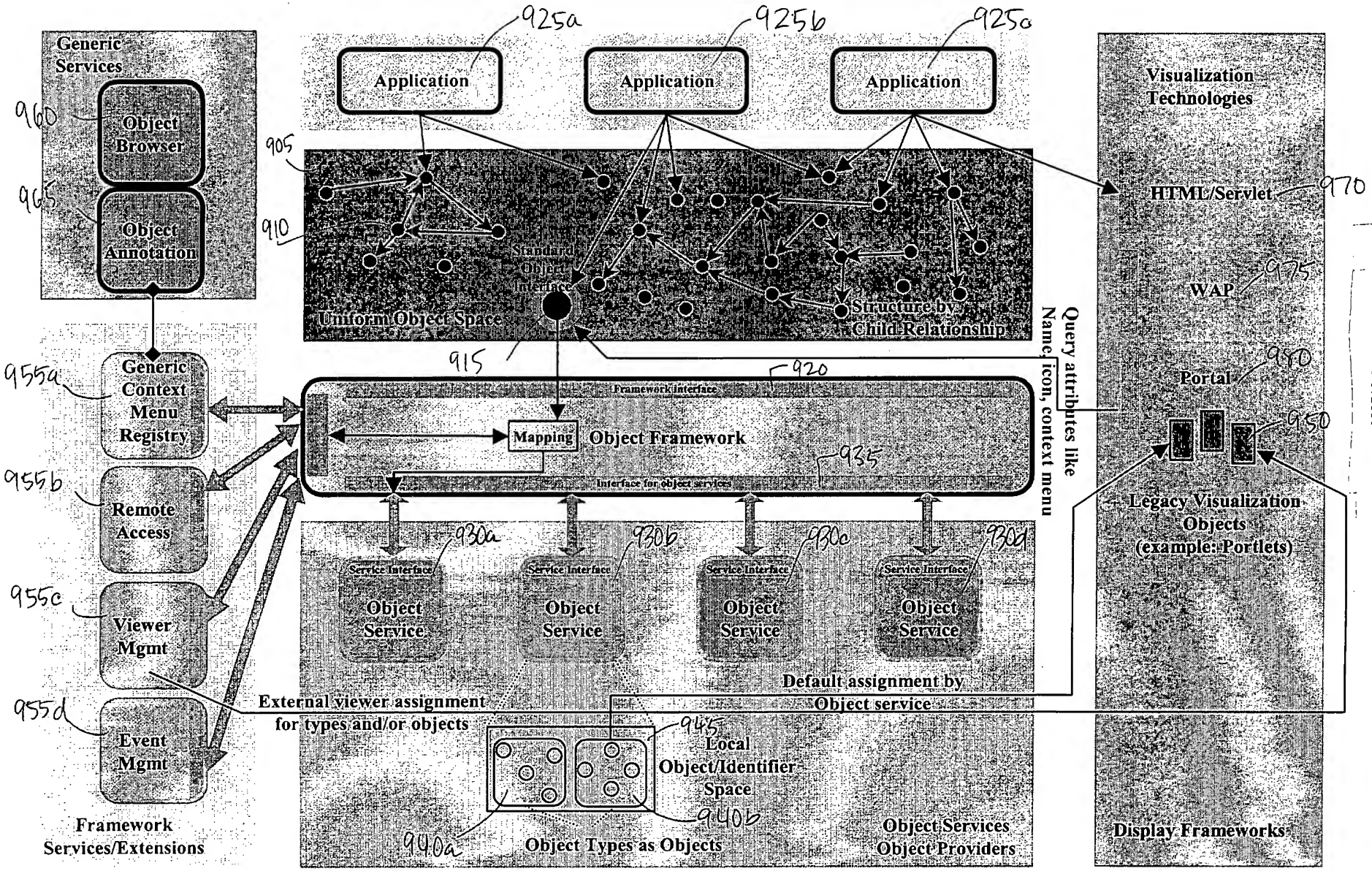
Generic Services
960
Object Browser
965
Object Annotation
Generic Context Menu Registry
955a
Remote Access
955b
Viewer Mgmt
955c
Event Mgmt
955d
Framework Services/Extensions
925a
925b
925c
Application
Application
Application
905
910
Standard Object Interface
Uniform Object Space
Structure by Child Relationship
915
920
Framework interface
Mapping
Object Framework
935
Interface for object services
930a
930b
930c
930d
Service Interface
Object Service
Object Service
Object Service
Object Service
External viewer assignment for types and/or objects
Default assignment by Object service
945
Local Object/Identifier Space
940a
940b
Object Types as Objects
Object Services Object Providers
Query attributes like Name, icon, context menu
Visualization Technologies
HTML/Servlet
970
WAP
975
Portal
980
950
Legacy Visualization Objects (example: Portlets)
Display Frameworks

FIG. 9